

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
9 June 2005 (09.06.2005)

PCT

(10) International Publication Number  
**WO 2005/051978 A2**

- (51) International Patent Classification<sup>7</sup>: **C07K**
- (21) International Application Number:  
PCT/US2004/039739
- (22) International Filing Date:  
26 November 2004 (26.11.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/524,833 25 November 2003 (25.11.2003) US
- (71) Applicant (for all designated States except US): **UNIVERSITY OF ROCHESTER** [US/US]; 518 Hylan Building, Rochester, NY 14627 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **SHEU, Shey-Shing** [US/US]; 31 Fall Meadow Drive, Pittsford, NY 14534 (US). **ANDERS, Marion, W.** [US/US]; 69 Tobey Court, Pittsford, NY 14534 (US). **XU, Lin** [CA/US]; 259 Quinby Road, Rochester, NY 14623 (US). **SHARMA, Virendra, K.** [US/US]; 21 Burncoat Way, Pittsford, NY 14534 (US).
- (74) Agents: **MERKEL, Edwin, V. et al.**; Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY 14603-1051 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:  
— without international search report and to be republished upon receipt of that report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COMPOUNDS FOR DELIVERING AMINO ACIDS OR PEPTIDES WITH ANTIOXIDANT ACTIVITY INTO MITOCHONDRIA AND USE THEREOF

(57) Abstract: Disclosed are compounds containing single amino acids, peptides, or derivatives thereof which have the potential to express anti-oxidant activity capable of reducing reactive oxygen species in cells. These compounds may be used to inhibit oxidative stress-induced cell injury or death both *in vivo* and *ex vivo*. In addition, methods for the synthesis of these compounds are disclosed.

WO 2005/051978 A2